

REMARKS

Claim Rejections 35 U.S.C. § 102 (b)

The Examiner has rejected claims 1-15 under 35 U.S.C. §102 (b) as being anticipated by Sheets (US 4,023,904) or Lee et al. (US 5,822,135). In the Examiner's opinion, Sheets teaches an apparatus having an opaque plate, a central opening disposed in the opaque plate and at least one peripheral opening disposed away from the central opening in the opaque plate (Fig. 11 and col. 10, lines 15-21; col. 1, lines 30-32). In the Examiner's opinion, the same structure is shown in the Embodiments of Figs. 12A and 12B (see col. 10, lines 14-39) in Lee et al.

Applicant respectfully disagrees with the Examiner. Claim 1 of Applicant's claimed invention claims an apparatus comprising: an opaque plate; a central opening disposed in said opaque plate; and at least one peripheral opening disposed away from said central opening in said opaque plate. The apparatus of the cited reference Sheets does not have any central opening at all. See Figures 9-11. On the contrary, the aperture plate (A) of Sheets only includes off-axis apertures (40). See col. 10, lines 13-14.

Furthermore, Applicant wishes to point out to the Examiner that the cited reference of Sheets teaches repeatedly against Applicant's claimed invention. For example, Sheets teaches "masking out a central area of the secondary light source aperture". See col. 3, lines 30-31. In addition, Sheets also teaches "taking out a 'core' of the highly collimated center rays". See col. 3, lines 43-45. Again, Sheets teaches "removal of central parallel rays along the optic axis". See col. 9, lines 29-30.

The other cited reference Lee et al. teaches an optical pickup device. More specifically, Lee et al. teaches an objective lens (200') that has light-controlling means (102), such as a light controlling groove having an annular shape. See Figures 12A-12B. Also, see col. 10, lines 19-21. Applicant wishes to point out to the Examiner that

annular necessarily refers to an off-axis location. Thus, Lee et al. does not teach any light-controlling means at an on-axis location (along the optical axis) in the center of the objective lens. Furthermore, an objective lens is not an aperture, as claimed in Applicant's claimed invention.

Since neither one of the two references cited by the Examiner teaches each and every element of claim 1 of Applicant's claimed invention, claim 1 of Applicant's claimed invention is not anticipated by either Sheets or Lee et al. Claims 2-5 are dependent on claim 1 and are, thus, also not anticipated by either Sheets or Lee et al.

Claim 6 of Applicant's claimed invention claims an apparatus comprising: a source of light; optical elements; and an aperture, said aperture comprising: an opaque plate; a central opening disposed in said opaque plate; and at least one peripheral opening disposed away from said central opening in said opaque plate.

For reasons similar to those discussed earlier with respect to claim 1, neither one of the two references cited by the Examiner teaches each and every element of claim 6 of Applicant's claimed invention. Thus, claim 6 of Applicant's claimed invention is not anticipated by either Sheets or Lee et al. Claims 7-10 are dependent on claim 6 and are, thus, also not anticipated by either Sheets or Lee et al.

Claim 11 of Applicant's claimed invention claims a method comprising: providing an illumination beam; forming an on-axis component of said illumination beam; forming at least one off-axis component of said illumination beam; combining said on-axis component and said at least one off-axis component into an exposure beam.

On-axis refers to an orientation along the central location of the optical axis. Again, for reasons similar to those discussed earlier with respect to claim 1, neither one of the two references cited by the Examiner teaches each and every element of claim 11 of Applicant's claimed invention. Thus, claim 11 of Applicant's claimed invention is not anticipated by either Sheets or Lee et al. Claims 12-15 are dependent on claim 11 and are, thus, also not anticipated by either Sheets or Lee et al.

In view of the foregoing, Applicant respectfully requests the Examiner to withdraw the rejections to claims 1-15 under 35 U.S.C. §102 (b).

Applicant believes that all claims pending, including claims 1-15, are now in condition for allowance so such action is earnestly solicited at the earliest possible date.